Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (original): A method for enhancing plant crop seed germination, seedling emergence or growth of a plant crop comprising the steps of:

providing a composition that comprises an effective amount of at least one lip

chitooligosaccharide (LCO) and an agriculturally suitable carrier; and

applying the composition in the immediate vicinity of a seed, root or plant in an effective amount for enhancing seed germination, seedling emergence or growth of said plant in comparison to an untreated plant.

Claim 2 (original): The method according to claim 1, wherein said plant crop is a non-legume.

Claim 3 (original): The method according to claim 2, wherein said plant crop is selected from the group consisting of Poaceae, Cucurbitaceae, Malvaceae, Asteraceae, Chenopodiaceae, Solanaceae and Brassicaceae.

Claim 4 (original): The method according to claim 3, wherein said plant crop is selected from the group consisting of corn, cotton, cucumber, cantaloupe, lettuce, beet, canola and potato.

Claim 5 (original): The method according to claim 1, wherein said LCO is obtainable from a rhizobia selected from the group consisting of *Bradyrhizobium japonicum, Rhizobium meliloti and Rhizobium leguminosarum.*

Claim 6 (original): The method according to claim 5, wherein said LCO is present in said composition at a concentration of between about 10^{-5} M to about 10^{-14} M.

Claim 7 (original): The method according to claim 5, wherein said LCO is present in said composition at a concentration of between about 10^{-6} M to about 10^{-12} M.

Claim 8 (original): The method according to claim 5, wherein said LCO is present in said composition at a concentration of between about 10^{-7} M to about 10^{-10} M.

Claim 9 (original): The method according to claim 1, wherein said composition is effective in enhancing seed germination or seedling emergence or growth of a plant crop grown under field conditions.

Claim 10 (original): The method according to claim 1, wherein said plant is a member of the Fabaceae family.

Claim 11 (original): The method according to claim 10, wherein said plant is selected from the group consisting of soybean, bean, alfalfa and clover.

Claim 12 (original): The method according to claim 10, wherein said LCO is obtainable from a rhizobia selected from the group consisting of *Bradyrhizobium japonicum. Rhizobium meliloti and Rhizobium leguminosarum.*

Claim 13 (original): The method according to claim 12, wherein said LCO is present in said composition at a concentration of between about 10^{-5} M to about 10^{-14} M.

Claim 14 (original): The method according to claim 12, wherein said LCO is present in said composition at a concentration of between about 10^{-6} M to about 10^{-12} M.

Claim 15 (original): The method according to claim 12, wherein said LCO is present in said composition at a concentration of between about 10^{-7} M to about 10^{-10} M.

Claim 16 (original): The method according to claim 10, wherein said composition is effective in enhancing seed germination or seedling emergence or growth of a plant crop grown under field conditions.

Claim 17 (original): A method for breaking the dormancy or quiescence of a plant comprising the steps of:

providing an agricultural composition comprising at least one lip chitooligosaccharide (LCO) and an agriculturally suitable carrier; and

applying the composition in the immediate vicinity of a seed, tuber or root in an effective amount to enable a breaking of the dormancy or quiescence of the seed, tuber, or root, in comparison to an untreated seed, tuber, or root.

Claim 18 (original): The method according to claim 17, wherein said plant is a member of the family of Solonaceae.

Claim 19 (original): The method according to claim 18, wherein said plant is a potato.

Claim 20 (original): The method according to claim 19, wherein said growth-promoting activity of said composition enables an increase in yield.

Claim 21 (original): The method according to claim 19, wherein said composition further comprises gibberellic acid.

Claims 22-25 (canceled)

Claim 26 (original): A method for enhancing seed germination, seedling emergence or growth of a plant crop comprising the steps of:

providing a rhizobial strain that expresses a lipo chitooligosaceharide (LCO); and

incubating the rhizobial strain in the immediate vicinity of one of a seed or root of

said plant such that said LCO enhances seed germination, seedling emergence or growth

of said plant crop, wherein said incubation enhances seed germination, seedling emergence or growth in comparison to a non-inoculated seed or root of said plant.

Claim 27 (original): The method of claim 26, wherein said plant crop is a non-legume.

Claim 28 (original): The method of claim 27, wherein said plant crop is selected from the group consisting of Poaceae, Cucurbitaceae, Malvaceae, Asteraceae, Chenopodiaceae, Solanaceae and Brassicaceae.

Claim 29 (original): The method of claim 28, wherein said plant crop is selected from the group consisting of com, cotton, cucumber, cantaloupe, lettuce, beet, canola and potato.

Claim 30 (original): The method of claim 26, wherein said rhizobia is selected from *Bradyrhizobium japonicum, Rhizobium meliloti and Rhizobium leguminosarum.*

Claim 31 (original): The method of claim 26, wherein said LCO enhances seed germination or seedling emergence or growth of said plant grown under field conditions.

Claim 32 (original): The method of claim 26, wherein said plant crop is a legume in the Fabaceae family and wherein said LCO enhances seed germination or seedling emergence or growth of said legume grown under field conditions.

Claims 33-34 (canceled)

Claim 35 (original): The method of claim 17, wherein said composition comprises a bacterial strain which expresses said LCO.

Claim 36 (original): The method of claim 35, wherein said bacterial strain is a rhizobial strain.

Claim 37 (previously presented): The method of claim 1, wherein said composition comprises a bacterial strain that expresses said LCO.

Claim 38 (previously presented): The method of claim 37, wherein said bacterial strain is a rhizobial strain.

Claim 39 (previously presented): A method for enhancing seed germination, seedling emergence or growth of a plant crop comprising the steps of:

providing a bacterial strain that expresses a lipo chitooligosaceharide (LCO); and

incubating said bacterial strain in the immediate vicinity of one of a seed or root of said plant such that said LCO enhances seed germination, seedling emergence or growth of said plant crop, wherein said incubation enhances seed germination, seedling emergence or growth in comparison to a non-inoculated seed or root of said plant.

Claim 40 (previously presented): A method for enhancing seed germination, seedling emergence or growth of a plant crop comprising the step of:

providing a bacterial strain that expresses a lipo chitooligosaceharide (LCO) in the immediate vicinity of one of a seed or root of said plant such that said bacterial strain, upon expression of said LCO, enhances seed germination, seedling emergence or growth of said plant crop, in comparison to a non-treated seed or root of said plant.

Claim 41 (previously presented): The method of claim 40 wherein said bacterial strain is a rhizobial strain.